

cal compositions comprising suprofen derivatives (I) in aqueous solution, optionally containing a preservative for multidose use and other conventionally employed ophthalmic adjuvants, including a salt entity to adjust the tonicity of solutions, can be employed. The most preferred form of delivery is by eye drops; however, formulations wherein the final specialty form is a gel or ointment can also be employed and formulated according to conventional technology. The ophthalmic compositions of the present invention will typically contain one or more compounds of formula (I) in an amount of from about 0.1% to about 4.0% (w/v), preferably from about 0.5% to about 2.0% (w/v).

A particularly preferred aqueous vehicle for the compounds of formula (I) is one comprising 0.5% to 3.0% (w/v) of a polyoxypropylene surfactant having polyoxyethylene groups at either end. These surfactants are known commercially as pluronics. PLURONIC P-84 is particularly preferred. The presence of such surfactants accentuates the bioavailability and desired pharmacological effect of the present suprofen derivatives of formula (I).

Further, additional therapeutic agents including steroids, such as, dexamethasone; antibiotics, such as, gentamicin; anti-infectives, such as, sulfonamides; and anti-allergics, such as, antihistamines, may be added to and supplement the ophthalmic compositions of the present invention.

The compositions may contain preservatives such as thimerosal, chlorobutanol, benzalkonium chloride, Onamer M, or chlorhexidine; buffering agents, such as phosphates, borates, carbonates and citrates; and thickening agents, such as, high molecular weight carboxy vinyl polymers, such as, the ones sold under the name of Carbopol which is a trademark of the B. F. Goodrich Chemical Company, hydroxyethylcellulose, or polyvinyl alcohol, for example.

The compositions are prepared by dissolving the various ingredients in the required amount of water with stirring to ensure that all the ingredients are dissolved. The aqueous compositions of the invention may be solutions, suspensions, or gels. After preparation of the solution, suspension, or gel the compositions are then packaged in dispensers suitable for delivery of the ophthalmic composition.

The following examples of ophthalmic compositions typify the manner in which the invention may be practiced. The examples should be construed as illustrative, and not as a limitation upon the overall scope of the invention. The percentages are expressed on a weight/volume basis.

EXAMPLE I

Example I	
Ingredient	Concentration (w/v %)
Suprofen pentanediol ester	1.4%
Pluronic P-84	1.0%
Benzalkonium Chloride	0.01 + 10% excess
Disodium Edetate	0.1%
Dried Sodium Phosphate	0.1%
Sodium Biphosphate	0.03%
Sodium Chloride	0.6%
pH adjustment with NaOH or HCl	q.s. pH 7.4

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Example I	
Ingredient	Concentration (w/v %)
Purified Water	q.s. 100%

EXAMPLE II

Example II	
Ingredient	Concentration (w/v %)
Suprofen propanediol ester	1.4%
Caffeine	1.0%
Pluronic P-84	1.0%
Benzalkonium Chloride	0.01 + 10% excess
Disodium Edetate	0.1%
Dried Sodium Phosphate	0.1%
Sodium Biphosphate	0.03%
Sodium Chloride	0.6%
pH adjustment with NaOH or HCl	q.s. pH 7.4
Purified Water	q.s. 100%

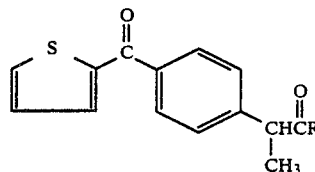
As noted above the preferred mode of delivery is by eye drops. The frequency of daily dosing and the duration of treatment are left to the routine discretion of the clinician when indicated for an ophthalmic anti-inflammatory effect.

It should be understood that while certain preferred embodiments of the present invention have been illustrated and described, various modifications thereof will become apparent to those skilled in the art. Accordingly, the scope of the present invention should be defined by the appended claims and equivalents thereof.

Various features of the invention are set forth in the following claims.

What is claimed is:

1. A compound of the following formula:



wherein R is selected from the group consisting of alkoxyl and hydroxyalkoxyl of 3 to 8 carbon atoms and alkylamino of 3 to 8 carbon atoms.

2. A compound according to claim 1 which is the pentanediol ester of suprofen.

3. A compound according to claim 1 which is the butylamine amide of suprofen.

4. An ophthalmic, anti-inflammatory composition for topical application to the eye comprising a therapeutically effective amount of a compound according to claim 1.

5. An ophthalmic, anti-inflammatory composition for topical application to the eye comprising an aqueous solution containing from about 0.1% to about 4.0% by weight of an amide or ester of suprofen and from about 0.5% to about 3.0% by weight of a polyoxypropylene having a polyoxyethylene group at either end.

6. A composition according to claim 5 wherein the ester or amide is the pentanediol ester or butylamine amide.

7. A method for the treatment of ophthalmic inflammation which comprises administration of a composition of claim 5.

8. A method according to claim 7 wherein the ester or amide is the pentanediol ester or butylamine amide.

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